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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

PETERSON, CHRISTOPHER K

ART UNIT PAPER NUMBER

2609

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/770,437

Applicant(s)

SUDA, YASUO

Examiner

Christopher K. Peterson

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02/04/07 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 2/4/04, 3/3/04, and 10/8/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The references listed on the information disclosure statement (IDS) submitted on 02/04/2004, 03/03/2004, and 10/08/2004 have been considered by the examiner (see attached PTO/SB/08).

Specification

3. The disclosure is objected to because of the following informalities:

In paragraph 0082, the citation "image pickup element 1.06" should be changed to "image pickup element 106" because figure 1 shows 106 as "image pickup element".

In paragraph 0109, the citation "step \$2" should be changed to "step S2" because figure 8 shows step S2 as "S2".

In paragraph 0131, the citation "step 3105" should be changed to "step S105" because figure 9 shows step S105 as "S105".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1-3, 6-7, 12-13, and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Endo (US Patent Pub. # 2003/0044174).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

As to claim 1, Endo (Fig. 1) discloses an image taking apparatus comprising: a light splitting unit (7 and 11) which splits a light flux from an image-taking lens to a plurality of light fluxes (Para 0046); a view finder optical system (8-10) for observing an object image formed by the light flux from the image-taking lens (Para 0046); an image pickup element (41) which photoelectrically converts the object image to an electric signal (Para 0055).

Endo teaches a focus detection unit (SNS1 31) for detecting the focusing state of the image-taking lens according to a phase difference detection system (Para 0052), wherein the light splitting unit (7 and 11) changes between a first state (main mirror 7 in the down position) in which the light flux is directed to the view finder optical system (8-10) and the focus detection unit (SNS1 31) and a second state (main mirror 7 in the up position) in which the light flux is directed to the image pickup element (41) and the focus detection unit (SNS1 31) (Para 0085).

As to claim 13, Endo discloses an image taking apparatus comprising: an image pickup element (41) which photoelectrically converts an object image to an electric signal (Para 0055); an image display unit (46) which displays image data acquired using the image pickup element (41) (Para 0057-0058), a control circuit (43-44) which controls the driving of the image display unit (46) (Para 0057).

Endo teaches a mirror member (7) which can move with respect to an image-taking optical path and allows at least part of the image-taking light flux to pass to the image pickup element (41) side when the mirror member (7) is inserted the image-taking optical path, wherein the control circuit causes the image display unit (46) to

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display only a part of the image data when the mirror member is inserted the image-taking optical path (Para 0058 and 0085). Examiner views the main mirror (7) and sub-mirror (11) as a light splitting unit in the path of the image-taking light flux. In saying this only part of the image will reach the image display unit.

As to claim 16, Endo (Fig. 5) discloses a lens apparatus (3) mounted on an image taking apparatus (1) having a first mode in which a light flux from the object is directed to a view finder optical system (8-10) and a focus detection unit (SNS1 31) and a second mode in which the light flux is directed to a image pickup element (41) and the focus detection unit (SNS1 31) comprising: a communication unit (an interconnection unit between camera CPU 50 and lens CPU 51) which communicates with the image taking apparatus (1) (Para 0102-0103); a light quantity adjusting unit (lens CPU 51) which control the quantity of the light flux directed to the image taking apparatus (1) (Para 0103).

Endo teaches a control circuit (camera CPU 50) which controls the driving of the light quantity adjusting unit (lens CPU 51) according to the communication of the communication unit (an interconnection unit between camera CPU 50 and lens CPU 51) (Para 0102); wherein the control circuit (camera CPU 50) changes the practice of the control of the light quantity adjusting unit (lens CPU 51) according to the first mode and the second mode (Para 0109-0110).

As to claim 2, Endo teaches the image taking apparatus (1) according to claim 1, further comprising: an image display unit (46) which displays image data acquired using the image pickup element (41); and a control circuit (44) which controls the driving of

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the image display unit (Para 0057), wherein the control circuit (44) causes the image display unit (46) to display the image data when the light splitting unit (7 and 11) is in the second state (Para 0113).

As to claim 3, Endo teaches the image taking apparatus (1) according to claim 2, wherein the control circuit (44) causes the image display unit (46) to display only a part of the image data when the light splitting unit is in the second state (Para 0058 and 0085).

As to claim 6, Endo teaches the image taking apparatus (1) according to claim 1, further comprising: a control circuit (44) which decides the focusing state of the image-taking lens based on the output of the focus detection unit (SNS1 31), wherein the control circuit (44) changes the decision of the focusing state according to the first state and the second state (Para 0122 - 0123).

As to claim 7, Endo teaches the image taking apparatus (1) according to claim 6, wherein the control circuit (44) decides the focusing state by correcting the output of the focus detection unit (SNS1 31) based on an initial phase difference and changes the value of the initial phase difference according to the first state and the second state (Para 0084).

As to claim 12, Endo teaches the image taking apparatus (1) according to claim 1, wherein the image-taking lens (3) is attachable/detachable (Para 0100 - 0101).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 8 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Endo (US Patent Pub. # 2003/0044174) in view of Sakamoto (US Patent # 6183142).

As to claim 14, this claim differs from claim 1 only in that the limitation "second mirror" is additionally recited. Endo does not teach wherein the second mirror moves to the position away from the light flux directed from the image-taking lens to the image pickup element in the second state.

Sakamoto (Fig. 8) teaches wherein the first mirror (50) changes between a first state in which the light flux lens is directed to the view finder optical system (2 and 3) and a second state in which the light flux is directed to the image pickup element, the second mirror (60) moves to the position away from the light flux directed from the image-taking lens to the image pickup element in the second state (Col. 4, lines 27 – 62). Since the mirrors rotate independently of each other, in the first state main mirror (50) and sub-mirror (60) are in position "A" and in the second state main mirror (50) is in position "B" and sub-mirror (60) is in position "A".

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided first and second mirrors that operate

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independently of each other as taught by Sakamoto to the apparatus of Endo, because it eliminates adjustment cost reduction, adjustment component elimination, adjustment component space reduction, and simplifies the rotational movement (Col. 7, line 11 - 30).

As to claim 8 and 9, these claims are recited same limitations as claim 14 and analyzed as previously discussed with respect to claim 14.

As to claim 10, Sakamoto teaches the image taking apparatus according to claim 8, wherein when changing from one state to the other between the first state and the second state, the light splitting unit (50 and 60) is put in a third state in which the first mirror (50) and the second mirror (60) are withdrawn from the image-taking optical path (Col. 4, line 38 – 50). In the third state main mirror (50) and sub-mirror (60) are in position “B”.

As to claim 11, Sakamoto (Fig. 8) teaches the image taking apparatus according to claim 8, further comprising: a stopper member (52a) which contacts the first mirror for positioning the first mirror in the first state, wherein the stopper member (52a) can move with respect to the moving track of the first mirror (Col. 5, lines 40 - 49).

8. Claims 5 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Endo (US Patent Pub. # 2003/0044174) in view of Fuchimukai (US Patent Pub. # 2002/0075394).

As to claim 15, this claim differs from claim 1 only in that the limitation “a light blocking member” is additionally recited. Endo does not teach a light-blocking member

which moves with respect to the optical path of the viewfinder optical system.

Fuchimukai (Fig. 6) teaches a light-blocking member (92A) which moves with respect to the optical path of the view finder optical system (40), wherein the light splitting unit (91) changes between a first state in which the light flux is directed to the view finder optical (40) system and a second state in which the light flux is directed to the image pickup element (50), the light-blocking member (92) is inserted in the optical path of the view finder optical system (40) in the second state (Para 0063).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided a light-blocking member which moves with respect to the optical path of the view finder optical system as taught by Fuchimukai to the apparatus of Endo, because it prevents light entering the eyepiece from reaching the CCD (Para 0063 of Fuchimukai).

As to claim 5, Fuchimukai (Fig. 6) teaches the image taking apparatus according to claim 1, further comprising: a light-blocking member (92A) which moves with respect to the optical path of the view finder optical system (40); and a control circuit which controls the driving of the light-blocking member (92A), wherein the control circuit (Para 0065) causes the light-blocking member (92A) to insert into the optical path when the light splitting unit is in the second state (Para 0063 - 0066 of Fuchimukai).

9. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Endo (US Patent Pub. # 2003/0044174) in view of Mukai (US Patent # 5489965).

As to claim 4, note the discussion of Endo above, Endo does not teach the image taking apparatus according to claim 1, further comprising: an information display unit

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(302) which displays information within the field of view of a view finder (5); and a control circuit which controls the driving of the information display unit, wherein the control circuit does not drive the information display unit when the light splitting unit is in the second state. Mukai (Fig. 11) teaches an information display unit (302) which displays information within the field of view of a view finder (5); and a control circuit (Col. 4, line 13-22) which controls the driving of the information display unit, wherein the control circuit (Col. 4, line 13-22) does not drive the information display unit when the light splitting unit is in the second state (Col. 4, line 3-22).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided an information display unit (302) which displays information within the field of view of a view finder (5) as taught by Mukai to the apparatus of Endo, because it would be convenient for the user looking through the view finder (Col. 1, line 14 - 37 of Mukai).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Morimoto (Patent Pub. # 2001/0026683) is cited to teach a digital camera.

Ejima (Patent # 5737648) is cited to teach a photometric device for a camera.

Wakui (Patent # 6546207) is cited to teach a camera capable of inputting data and selectively displaying image.

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Inquiries


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher K. Peterson whose telephone number is 571-270-1704. The examiner can normally be reached on Monday - Friday 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chanh D. Nguyen can be reached on 571-272-7772. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CKP

2/5/2007


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SUPERVISORY PATENT EXAMINER